WHAT IS CLAIMED IS:

1. A chemical conjugate comprising a first chemical moiety covalently linked to a second chemical moiety, wherein said first chemical moiety is a psychotropic drug residue and further wherein said second chemical moiety is an organic acid residue, said organic acid residue is selected so as to reduce side effects induced by said psychotropic drug when said psychotropic drug is administered per se and/or to exert anti-proliferative activity.

2. The chemical conjugate of claim 1, wherein said second chemical moiety is selected from the group consisting of a GABA agonist residue, an analgesic residue and an anti-proliferative agent residue.

3. The chemical conjugate of claim 1, wherein said second chemical moiety is covalently linked to said first chemical moiety via an ester bond selected from the group consisting of a carboxylic ester bond, an alkyloxy carboxylic ester bond, an amide bond and a thioester bond.

4. The chemical conjugate of claim 1, wherein said psychotropic drug has an anti-proliferative activity.

5. The chemical conjugate of claim 1, wherein said psychotropic drug has a chemosensitization activity.

6. The chemical conjugate of claim 4, wherein said psychotropic drug is selected from the group consisting of phenothiazine and a phenothiazine derivative.

7. The chemical conjugate of claim 1, wherein said psychotropic drug residue is an anti-psychotic drug residue.

8. The chemical conjugate of claim 7, wherein said anti-psychotic drug residue is selected from the group consisting of a typical anti-psychotic drug residue and an atypical psychotic drug residue.

9. The chemical conjugate of claim 1, wherein said psychotropic drug residue is selected from the group consisting of an anxiolytic drug residue, an anti-depressant residue, an anti-convulsive drug residue, an anti-parkinsonian drug residue, an acetylcholine esterase inhibitor residue, a MAO inhibitor residue, a tricyclic psychotropic drug residue, a bicyclic psychotropic drug residue, a monocyclic psychotropic drug residue, a phenothiazine residue, a benzodiazepine residue and a butyrophenone residue.

10. The chemical conjugate of claim 1, wherein said psychotropic drug residue is selected from the group consisting of a chlorpromazine residue, a perphenazine residue, a fluphenazine residue, a zuclopenthixol residue, a thiopropazate residue, a haloperidol residue, a benperidol residue, a bromperidol residue, a droperidol residue, a spiperone residue, a pimozide residue, a piperacetazine residue, an amilsulpride residue, a sulpiride residue, a clothiapine residue, a ziprasidone residue, a remoxipride residue, a sultopride residue, an alizapride residue, a nemonapride residue, a clozapine residue, an olanzapine residue, a ziprasidone residue, a sertindole residue, a quetiapine residue, a fluoxetine residue, a fluvoxamine residue, a desipramine residue, a paroxetine residue, a sertraline residue, a valproic acid residue, a temazepam residue, a flutemazepam residue, a doxefazepam residue, an oxazepam residue, a lorazepam residue, a lormetazepam residue, a cinolazepam residue, a flutazolam residue, a lopirazepam residue, a meprobamate residue, a carisoprodol residue, an acetophenazine residue, a carphenazine residue, a dixyrazine residue, a priciazine residue, a pipothiazine residue, a homophenazine resdiue, a perimetazine residue, a perthipentyl residue, a flupentixol residue, a piflutixol residue, a teflutixol residue, an oxypethepin

residue, a trifluperidol residue, a penfluridol residue, a meclobemide residue, a norclomipramine residue, an amoxapine residue, a nortriptyline residue, a protriptyline residue, a reboxetine residue, a tacrine residue, a rasagiline residue, an amatadine residue, a phenobarbital residue and a phenytoin residue.

11. The chemical conjugate of claim 2, wherein said GABA agonist residue is selected from the group consisting of a (±) baclofen residue, an γ-aminobutyric acid (GABA) residue, a γ-hydroxybutyric acid residue, an aminooxyacetic acid residue, a β-(4-chlorophenyl)-γ-aminobutyric acid residue, an isonipecotic acid residue, a piperidine-4-sulfonic acid residue, an 3-aminopropylphosphonous acid residue, an 3-aminopropylphosphinic acid residue, an 3-(aminopropyl)methylphosphinic acid residue, a 1-(aminomethyl)cyclohexaneacetic acid residue (gabapentin), A y-vinyl-γ-aminobutyric acid (y-vinyl GABA, vigabatrin) and an 3-(2-imidazolyl)-4-aminobutanoic acid residue.

12. The chemical conjugate of claim 2, wherein said anti-proliferative agent residue is selected from the group consisting of a butyric acid residue and a 4-phenylbutyric acid residue.

13. The chemical conjugate of claim 1, wherein said organic acid residue has a general formula:

-R-C(=O)-

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

$$-Z-C(=O)O-CHR_2-R_3$$

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur.

14. The chemical conjugate of claim 13, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

15. The chemical conjugate of claim 1, wherein said organic acid residue is selected from the group consisting of a butyric acid residue, a valeric acid residue, a 4-phenylbutyric acid residue, an 4-aminobutyric acid residue, a retinoic acid residue, a sulindac acid residue, an acetyl salicylic acid residue, an ibuprofen residue, a malonic acid residue, a succinic acid residue, a glutaric acid residue, a fumaric acid residue and a phthalic acid residue.

16. A pharmaceutical composition comprising, as and active ingredient, the chemical conjugate of claim 1 and a pharmaceutically acceptable carrier.

17. The pharmaceutical composition of claim 16, being packaged in a packaging material and identified in print, on or in said packaging material, for use in the treatment of a psychotropic disorder or disease.

18. The pharmaceutical composition of claim 17, wherein said psychotropic disorder or disease is selected from the group consisting of a psychotic disorder or disease, an anxiety disorder, a dissociative disorder, a personality disorder, a mood disorder, an affective disorder, a neurodegenerative disease or disorder, a convulsive disorder, a boarder line disorder and a mental disease or disorder.

19. The pharmaceutical composition of claim 17, wherein said psychotropic disorder or disease is selected from the group consisting of schizophrenia, paranoia, childhood psychoses, Huntington's disease, Gilles de la Tourette's syndrome, depression, manic depression, anxiety, Parkinson disease, Alzheimer disease and epilepsy.

20. The pharmaceutical composition of claim 16, being packaged in a packaging material and identified in print, on or in said packaging material, for use in the treatment of a proliferative disorder or disease.

21. The pharmaceutical composition of claim 20, wherein said proliferative disorder or disease is selected from the group consisting of a brain tumor, a brain metastase and a peripheral tumor.

22. The pharmaceutical composition of claim 20, wherein said proliferative disorder is cancer.

23. The pharmaceutical composition of claim 22, wherein said cancer is a multidrug resistant cancer.

24. The pharmaceutical composition of claim 16, being packaged in a packaging material and identified in print, on or in said packaging material, for use in chemosensitization, in combination with a chemotherapeutic agent and/or in a medical condition for which chemosensitization is beneficial.

25. The pharmaceutical composition of claim 16, wherein said second chemical moiety is selected from the group consisting of a GABA agonist residue, an analgesic residue and an anti-proliferative agent residue.

26. The pharmaceutical composition of claim 16, wherein said second chemical moiety is covalently linked to said first chemical moiety via an ester bond selected from the group consisting of a carboxylic ester bond, an alkyloxy carboxylic aster bond, an amide bond and a thioester bond.

27. The pharmaceutical composition of claim 16, wherein said psychotropic drug has an anti-proliferative activity.

28. The pharmaceutical composition of claim 16, wherein said psychotropic drug has a chemosensitization activity.

29. The pharmaceutical composition of claim 27, wherein said psychotropic drug is selected from the group consisting of a phenothiazine and a phenothiazine derivative.

30. The pharmaceutical composition of claim 16, wherein said psychotropic drug residue is an anti-psychotic drug residue.

31. The pharmaceutical composition of claim 30, wherein said anti-psychotic drug residue is selected from the group consisting of a typical anti-psychotic drug residue and an atypical psychotic drug residue.

32. The pharmaceutical composition of claim 16, wherein said psychotropic drug residue is selected from the group consisting of an anxiolytic drug residue, an anti-depressant residue, an anti-convulsive drug residue, an anti-parkinsonian drug residue, an acetylcholine esterase inhibitor residue, a MAO inhibitor residue, a tricyclic psychotropic drug residue, a bicyclic psychotropic drug residue, a monocyclic psychotropic drug residue, a phenothiazine residue, a benzodiazepine residue and a butyrophenone residue.

33. The pharmaceutical composition of claim 16, wherein said psychotropic drug residue is selected from the group consisting of a chlorpromazine residue, a perphenazine residue, a fluphenazine residue, a zuclopenthixol residue, a thiopropazate residue, a haloperidol residue, a benperidol residue, a bromperidol residue, a droperidol residue, a spiperone residue, a pimozide residue, a piperacetazine residue, an amilsulpride residue, a sulpiride residue, a clothiapine residue, a ziprasidone residue, a remoxipride residue, a sultopride residue, an alizapride residue, a nemonapride residue, a clozapine residue, an olanzapine residue, a ziprasidone residue, a sertindole residue, a quetiapine residue, a fluoxetine residue, a fluvoxamine residue, a desipramine residue, a paroxetine residue, a sertraline residue, a valproic acid residue, a temazepam residue, a flutemazepam residue, a doxefazepam residue, an oxazepam residue, a lorazepam residue, a lormetazepam residue, a cinolazepam residue, a flutazolam residue, a lopirazepam residue, a meprobamate residue, a carisoprodol residue, an acetophenazine residue, a carphenazine residue, a dixyrazine residue, a priciazine residue, a pipothiazine residue, a homophenazine resdiue, a perimetazine residue, a perthipentyl residue, a flupentixol residue, a piflutixol residue, a teflutixol residue, an oxypethepin residue, a trifluperidol residue, a penfluridol residue, a meclobemide residue, a norclomipramine residue, an amoxapine residue, a nortriptyline residue, a protriptyline residue, a reboxetine residue, a tacrine

residue, a rasagiline residue, an amatadine residue, a phenobarbital residue and a phenytoin residue.

34. The pharmaceutical composition of claim 25, whercin said GABA agonist residue is selected from the group consisting of a (±) baclofen residue, an γ-aminobutyric acid (GABA) residue, a γ-hydroxybutyric acid residue, an aminooxyacetic acid residue, a β-(4-chlorophenyl)-γ-aminobutyric acid residue, an isonipecotic acid residue, a piperidine-4-sulfonic acid residue, an 3-aminopropylphosphonous acid residue, an (3-aminopropyl)phosphinic acid residue, an 3-(aminopropyl)methylphosphinic acid residue a 1-(aminomethyl)cyclohexaneacetic acid residue (gabapentin), A y-vinyl-γ-aminobutyric acid (y-vinyl GABA, vigabatrin) and an 3-(2-imidazolyl)-4-aminobutanoic acid residue.

35. The pharmaceutical composition of claim 25, wherein said anti-proliferative drug residue is selected from the group consisting of a butyric acid residue and a 4-phenylbutyric acid residue.

36. The pharmaceutical composition of claim 16, wherein said organic acid residue has a general formula:

-R-C(=O)-

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

-Z-C(=O)O-CHR_2-R_3

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur.

37. The pharmaceutical composition of claim 36, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

38. The pharmaceutical composition of claim 16, wherein said organic acid residue is selected from the group consisting of a butyric acid residue, a valeric acid residue, a 4-phenylbutyric acid residue, an 4-aminobutyric acid residue, a retinoic acid residue, a sulindac acid residue, an acetyl salicylic acid residue, an ibuprofen residue, a malonic acid residue, a succinic acid residue, a glutaric acid residue, a fumaric acid residue and a phthalic acid residue.

39. A method of treating or preventing a psychotropic disorder or disease in a subject, the method comprising administering to the subject a therapeutically effective amount of the chemical conjugate of claim 1.

40. The method of claim 39, wherein said psychotropic disorder or disease is selected from the group consisting of a psychotic disorder or disease,

an anxiety disorder, a dissociative disorder, a personality disorder, a mood disorder, an affective disorder, a neurodegenerative disease or disorder, a convulsive disorder, a boarder line disorder and a mental disease or disorder.

41. The method of claim 39, wherein said psychotropic disorder or disease is selected from the group consisting of schizophrenia, paranoia, childhood psychoses, Huntington's disease, Gilles de la Tourette's syndrome, depression, manic depression, anxiety, Parkinson disease, Alzheimer disease and epilepsy.

42. The method of claim 39, wherein said chemical conjugate is administered intraperitoneally.

43. The method of claim 39, wherein said chemical conjugate is administered orally.

44. The method of claim 39, wherein said second chemical moiety is selected from the group consisting of a GABA agonist residue, an analgesic residue and an anti-proliferative agent residue.

45. The method of claim 39, wherein said second chemical moiety is covalently linked to said first chemical moiety via an ester bond selected from the group consisting of a carboxylic ester bond, an alkyloxy carboxylic ester bond, an amide bond and a thioester bond.

46. The method of claim 39, wherein said psychotropic drug has an anti-proliferative activity.

47. The method of claim 39, wherein said psychotropic drug has a chemosensitization activity.

48. The method of claim 46, wherein said psychotropic drug is selected from the group consisting of a phenothiazine and a phenothiazine derivative.

49. The method of claim 39, wherein said psychotropic drug residue is an anti-psychotic drug residue.

50. The method of claim 49, wherein said anti-psychotic drug residue is selected from the group consisting of a typical anti-psychotic drug residue and an atypical psychotic drug residue.

51. The method of claim 39, wherein said psychotropic drug residue is selected from the group consisting of an anxiolytic drug residue, an anti-depressant residue, an anti-convulsive drug residue, an anti-parkinsonian drug residue, an acetylcholine esterase inhibitor residue, a MAO inhibitor residue, a tricyclic psychotropic drug residue, a bicyclic psychotropic drug residue, a monocyclic psychotropic drug residue, a phenothiazine residue, a benzodiazepine residue and a butyrophenone residue.

52. The method of claim 39, wherein said psychotropic drug residue is selected from the group consisting of a chlorpromazine residue, a perphenazine residue, a fluphenazine residue, a zuclopenthixol residue, a thiopropazate residue, a haloperidol residue, a benperidol residue, a bromperidol residue, a droperidol residue, a spiperone residue, a pimozide residue, a piperacetazine residue, an amilsulpride residue, a sulpiride residue, a clothiapine residue, a ziprasidone residue, a remoxipride residue, a sultopride residue, an alizapride residue, a nemonapride residue, a clozapine residue, an olanzapine residue, a ziprasidone residue, a sertindole residue, a quetiapine residue, a fluoxetine residue, a fluvoxamine residue, a desipramine residue, a paroxetine residue, a sertraline residue, a valproic acid residue, a temazepam

residue, a flutemazepam residue, a doxefazepam residue, an oxazepam residue, a lorazepam residue, a lormetazepam residue, a cinolazepam residue, a flutazolam residue, a lopirazepam residue, a meprobamate residue, a carisoprodol residue, an acetophenazine residue, a carphenazine residue, a dixyrazine residue, a priciazine residue, a pipothiazine residue, a homophenazine resdiue, a perimetazine residue, a perthipentyl residue, a flupentixol residue, a piflutixol residue, a teflutixol residue, an oxypethepin residue, a trifluperidol residue, a penfluridol residue, a meclobemide residue, a norclomipramine residue, an amoxapine residue, a nortriptyline residue, a protriptyline residue, a reboxetine residue, a tacrine residue, a rasagiline residue, an amatadine residue, a phenobarbital residue and a phenytoin residue.

53. The method of claim 44, wherein said GABA agonist residue is selected from the group consisting of a (±) baclofen residue, an γ-aminobutyric acid (GABA) residue, a γ-hydroxybutyric acid residue, an aminooxyacetic acid residue, a β-(4-chlorophenyl)-γ-aminobutyric acid residue, an isonipecotic acid residue, a piperidine-4-sulfonic acid residue, an 3-aminopropylphosphonous acid residue, an 3-aminopropylphosphinic acid residue, an 3-(aminopropyl)methylphosphinic acid residue a 1-(aminomethyl)cyclohexaneacetic acid residue (gabapentin), A y-vinyl-γ-aminobutyric acid (y-vinyl GABA, vigabatrin) and an 3-(2-imidazolyl)-4-aminobutanoic acid residue.

54. The method of claim 44, wherein said anti-proliferative agent residue is selected from the group consisting of a butyric acid residue and a 4-phenylbutyric acid residue.

55. The method of claim 39, wherein said organic acid residue has a general formula:

-R-C(=O)-

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

$$-Z-C(=O)O-CHR_2-R_3$$

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur.

56. The method of claim 55, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

57. The method of claim 39, wherein said organic acid residue is selected from the group consisting of a butyric acid residue, a valeric acid residue, a 4-phenylbutyric acid residue, an 4-aminobutyric acid residue, a retinoic acid residue, a sulindac acid residue, an acetyl salicylic acid residue, an

ibuprofen residue, a malonic acid residue, a succinic acid residue, a glutaric acid residue, a fumaric acid residue and a phthalic acid residue.

58. A method of treating or preventing a proliferative disorder or disease in a subject, the method comprising administering to the subject a therapeutically effective amount of the chemical conjugate of claim 1.

59. The method of claim 58, wherein said proliferative disorder or disease is selected from the group consisting of a brain tumor, a brain metastase and a peripheral tumor.

60. The method of claim 58, wherein said proliferative disorder is cancer.

61. The method of claim 60, wherein said cancer is multidrug resistant cancer.

62. The method of claim 58, wherein said second chemical moiety is selected from the group consisting of a GABA agonist residue, an analgesic residue and an anti-proliferative agent residue.

63. The method of claim 58, wherein said second chemical moiety is covalently linked to said first chemical moiety via an ester bond selected from the group consisting of a carboxylic ester bond, an alkyloxy carboxylic ester bond, an amide bond and a thioester bond.

64. The method of claim 58, wherein said psychotropic drug has an anti-proliferative activity.

65. The method of claim 58, wherein said psychotropic drug has a chemosensitization activity.

66. The method of claim 64, wherein said psychotropic drug is selected from the group consisting of a phenothiazine and a phenothiazine derivative.

67. The method of claim 58, wherein said psychotropic drug residue is an anti-psychotic drug residue.

68. The method of claim 66, wherein said anti-psychotic drug residue is selected from the group consisting of a typical anti-psychotic drug residue and an atypical psychotic drug residue.

69. The method of claim 58, wherein said psychotropic drug residue is selected from the group consisting of an anxiolytic drug residue, an anti-depressant residue, an anti-convulsive drug residue, an anti-parkinsonian drug residue, an acetylcholine esterase inhibitor residue, a MAO inhibitor residue, a tricyclic psychotropic drug residue, a bicyclic psychotropic drug residue, a monocyclic psychotropic drug residue, a phenothiazine residue, a benzodiazepine residue and a butyrophenone residue.

70. The method of claim 58, wherein said psychotropic drug residue is selected from the group consisting of a chlorpromazine residue, a perphenazine residue, a fluphenazine residue, a zuclopenthixol residue, a thiopropazate residue, a haloperidol residue, a benperidol residue, a bromperidol residue, a droperidol residue, a spiperone residue, a pimozide residue, a piperacetazine residue, an amilsulpride residue, a sulpiride residue, a clothiapine residue, a ziprasidone residue, a remoxipride residue, a sultopride residue, an alizapride residue, a nemonapride residue, a clozapine residue, an olanzapine residue, a ziprasidone residue, a sertindole residue, a quetiapine residue, a fluoxetine residue, a fluvoxamine residue, a desipramine residue, a paroxetine residue, a sertraline residue, a valproic acid residue, a temazepam

residue, a flutemazepam residue, a doxefazepam residue, an oxazepam residue, a lorazepam residue, a lormetazepam residue, a cinolazepam residue, a flutazolam residue, a lopirazepam residue, a meprobamate residue, a carisoprodol residue, an acetophenazine residue, a carphenazine residue, a dixyrazine residue, a priciazine residue, a pipothiazine residue, a homophenazine resdiue, a perimetazine residue, a perthipentyl residue, a flupentixol residue, a piflutixol residue, a teflutixol residue, an oxypethepin residue, a trifluperidol residue, a penfluridol residue, a meclobemide residue, a norclomipramine residue, an amoxapine residue, a nortriptyline residue, a protriptyline residue, a reboxetine residue, a tacrine residue, a rasagiline residue, an amatadine residue, a Phenobarbital residue and a phenytoin residue.

71. The method of claim 62, wherein said GABA agonist residue is selected from the group consisting of a (±) baclofen residue, an γ-aminobutyric acid (GABA) residue, a γ-hydroxybutyric acid residue, an aminooxyacetic acid residue, a β-(4-chlorophenyl)-γ-aminobutyric acid residue, an isonipecotic acid residue, a piperidine-4-sulfonic acid residue, an 3-aminopropylphosphonous acid residue, an 3-aminopropylphosphinic acid residue, an 3-(aminopropyl)methylphosphinic acid residue a 1-(aminomethyl)cyclohexaneacetic acid residue (gabapentin), A y-vinyl-γ-aminobutyric acid (y-vinyl GABA, vigabatrin) and an 3-(2-imidazolyl)-4-aminobutanoic acid residue.

72. The method of claim 62, wherein said anti-proliferative agent residue is selected from the group consisting of a butyric acid residue and a 4-phenylbutyric acid residue.

73. The method of claim 58, wherein said organic acid residue has a general formula:

-R-C(=O)-

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

$$-Z-C(=O)O-CHR_2-R_3$$

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur.

74. The method of claim 73, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

75. The method of claim 58, wherein said organic acid residue is selected from the group consisting of a butyric acid residue, a valeric acid residue, a 4-phenylbutyric acid residue, an 4-aminobutyric acid residue, a retinoic acid residue, a sulindac acid residue, an acetyl salicylic acid residue, an

ibuprofen residue, a malonic acid residue, a succinic acid residue, a glutaric acid residue, a fumaric acid residue and a phthalic acid residue.

76. A method of chemosensitization, comprising administering to a subject in need thereof a chemotherapeutically effective amount of at least one chemotherapeutic agent and a chemosensitizing effective amount of the chemical conjugate of claim 1.

77. The method of claim 76, wherein said subject has cancer.

78. The method of claim 77, wherein said cancer is a multidrug resistant cancer.

79. The method of claim 76, wherein said second chemical moiety is selected from the group consisting of a GABA agonist residue, an analgesic and an anti-proliferative agent residue.

80. The method of claim 76, wherein said second chemical moiety is covalently linked to said first chemical moiety via an ester bond selected from the group consisting of a carboxylic ester bond, an alkyloxy carboxylic ester bond, an amide bond and a thioester bond.

81. The method of claim 76, wherein said psychotropic drug has an anti-proliferative activity.

82. The method of claim 76, wherein said psychotropic drug has a chemosensitization activity.

83. The method of claim 81, wherein said psychotropic drug is selected from the group consisting of a phenothiazine and a phenothiazine derivative.

84. The method of claim 76, wherein said psychotropic drug residue is an anti-psychotic drug residue.

85. The method of claim 84, wherein said anti-psychotic drug residue is selected from the group consisting of a typical anti-psychotic drug residue and an atypical psychotic drug residue.

86. The method of claim 76, wherein said psychotropic drug residue is selected from the group consisting of an anxiolytic drug residue, an anti-depressant residue, an anti-convulsive drug residue, an anti-parkinsonian drug residue, an acetylcholine esterase inhibitor residue, a MAO inhibitor residue, a tricyclic psychotropic drug residue, a bicyclic psychotropic drug residue, a monocyclic psychotropic drug residue, a phenothiazine residue, a benzodiazepine residue and a butyrophenone residue.

87. The method of claim 76, wherein said psychotropic drug residue is selected from the group consisting of a chlorpromazine residue, a perphenazine residue, a fluphenazine residue, a zuclopenthixol residue, a thiopropazate residue, a haloperidol residue, a benperidol residue, a bromperidol residue, a droperidol residue, a spiperone residue, a pimozide residue, a piperacetazine residue, an amilsulpride residue, a sulpiride residue, a clothiapine residue, a ziprasidone residue, a remoxipride residue, a sultopride residue, an alizapride residue, a nemonapride residue, a clozapine residue, an olanzapine residue, a ziprasidone residue, a sertindole residue, a quetiapine residue, a fluoxetine residue, a fluvoxamine residue, a desipramine residue, a paroxetine residue, a sertraline residue, a valproic acid residue, a temazepam

residue, a flutemazepam residue, a doxefazepam residue, an oxazepam residue, a lorazepam residue, a lormetazepam residue, a cinolazepam residue, a flutazolam residue, a lopirazepam residue, a meprobamate residue, a carisoprodol residue, an acetophenazine residue, a carphenazine residue, a dixyrazine residue, a priciazine residue, a pipothiazine residue, a homophenazine resdiue, a perimetazine residue, a perthipentyl residue, a flupentixol residue, a piflutixol residue, a teflutixol residue, an oxypethepin residue, a trifluperidol residue, a penfluridol residue, a meclobemide residue, a norclomipramine residue, an amoxapine residue, a nortriptyline residue, a protriptyline residue, a reboxetine residue, a tacrine residue, a rasagiline residue, an amatadine residue, a phenobarbital residue and a phenytoin residue.

88. The method of claim 79, wherein said GABA agonist residue is selected from the group consisting of a (±) baclofen residue, an γ-aminobutyric acid (GABA) residue, a γ-hydroxybutyric acid residue, an aminooxyacetic acid residue, a β-(4-chlorophenyl)-γ-aminobutyric acid residue, an isonipecotic acid residue, a piperidine-4-sulfonic acid residue, an 3-aminopropylphosphonous acid residue, an 3-aminopropylphosphinic acid residue, an 3-(aminopropyl)methylphosphinic acid residue a 1-(aminomethyl)cyclohexaneacetic acid residue (gabapentin), A y-vinyl-γ-aminobutyric acid (y-vinyl GABA, vigabatrin) and an 3-(2-imidazolyl)-4-aminobutanoic acid residue.

89. The method of claim 79, wherein said anti-proliferative agent residue is selected from the group consisting of a butyric acid residue and a 4-phenylbutyric acid residue.

90. The method of claim 76, wherein said organic acid residue has a general formula:

-R-C(=O)-

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

$$-Z-C(=O)O-CHR_2-R_3$$

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur.

91. The method of claim 90, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

92. The method of claim 76, wherein said organic acid residue is selected from the group consisting of a butyric acid residue, a valeric acid residue, a 4-phenylbutyric acid residue, an 4-aminobutyric acid residue, a retinoic acid residue, a sulindac acid residue, an acetyl salicylic acid residue, an

ibuprofen residue, a malonic acid residue, a succinic acid residue, a glutaric acid residue, a fumaric acid residue and a phthalic acid residue.

93. A method of synthesizing the chemical conjugate of claim 1, the method comprising:

reacting an organic acid and a psychotropic drug, so as to obtain a residue of said organic acid covalently linked to a residue of said psychotropic drug.

94. The method of claim 93, wherein said organic acid is selected from the group consisting of a GABA agonist, an analgesic, and an anti-proliferative agent.

95. The method of claim 94, wherein said organic acid is an anti-proliferating agent and further wherein said residue of said organic acid is covalently linked to said residue of said psychotropic drug via a carboxylic ester bond, the method further comprising, prior to said reacting:

converting said organic acid into an acyl chloride derivative thereof.

96. The method of claim 95, wherein said reacting is performed under basic conditions.

97. The method of claim 95, wherein said anti-proliferative agent is selected from the group consisting of a butyric acid and a 4-phenylbutyric acid.

98. The method of claim 94, wherein said organic acid is an anti-proliferating agent and further wherein said residue of said organic acid is covalently linked to said residue of said psychotropic drug via a thioester bond, the method further comprising, prior to said reacting:

converting said psychotropic drug into a thiol derivative thereof; and

converting said organic acid into an acyl chloride derivative thereof.

99. The method of claim 98, wherein said anti-proliferative agent is selected from the group consisting of a butyric acid and a 4-phenylbutyric acid.

100. The method of claim 94, wherein said organic acid is an anti-proliferating agent and further wherein said residue of said organic acid is covalently linked to said residue of said psychotropic drug via an amide bond, the method further comprising, prior to said reacting:

converting said organic acid into an acyl chloride derivative thereof; and

converting said psychotropic drug into an amine derivative thereof.

101. The method of claim 100, wherein said reacting is performed under basic conditions.

102. The method of claim 100, wherein said anti-proliferative agent is selected from the group consisting of a butyric acid and a 4-phenylbutyric acid.

103. The method of claim 94, wherein said organic acid is an anti-proliferating agent and further wherein said residue of said organic acid is covalently linked to said residue of said psychotropic drug via an alkyloxy carboxylic ester bond, the method further comprising, prior to said reacting:

converting said psychotropic drug into a chloroalkyl ester derivative thereof.

104. The method of claim 103, wherein said reacting is performed under basic conditions.

105. The method of claim 103, wherein said anti-proliferative agent is selected from the group consisting of a butyric acid and a 4-phenylbutyric acid.

106. The method of claim 93, wherein said organic acid has a general formula:

-R-C(=O)-OH

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

-Z-C(=O)O-CHR_2-R_3

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur,

and further wherein said residue of said organic acid residue is covalently linked to said residue of said psychotropic drug via a carboxylic ester bond, the method further comprising, prior to said reacting:

converting said organic acid into an acyl chloride derivative thereof.

107. The method of claim 106, wherein said reacting is performed under basic conditions.

108. The method of claim 106, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

109. The method of claim 93, wherein said organic acid has a general formula:

-R-C(=O)-OH

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

-Z-C(=O)O-CHR_2-R_3

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur,

and further wherein said residue of said organic acid is covalently linked to said residue of said psychotropic drug via a thioester bond, the method further comprising, prior to said reacting:

converting said psychotropic drug into a thiol derivative thereof; and

converting said organic acid into an acyl chloride derivative thereof.

110. The method of claim 109, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

111. The method of claim 93, wherein said organic acid has a general formula:

-R-C(=O)-OH

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

-Z-C(=O)O-CHR_2-R_3

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur,

and further wherein said residue of said organic acid is covalently linked to said residue of said psychotropic drug via an amide bond, the method comprising, prior to said reacting:

converting said organic acid into an acyl chloride derivative thereof; and

converting said psychotropic drug into an amine derivative thereof.

112. The method of claim 111, wherein said reacting is performed under basic conditions.

113. The method of claim 111, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

114. The method of claim 93, wherein said organic acid has a general formula:

-R-C(=O)-OH

wherein,

R is selected from the group consisting of a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur and R_1,

whereas,

R_1 is a residue of a general formula:

-Z-C(=O)O-CHR_2-R_3

wherein,

Z is selected from the group consisting of a single bond, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur;

R_2 is selected from the group consisting of hydrogen and an alkyl having 1-10 carbon atoms; and

R_3 is selected form the group consisting of hydrogen, a substituted or non-substituted hydrocarbon residue having 1-20 carbon atoms and a substituted or non-substituted alkyl having 1-20 carbon atoms and at least one heteroatom selected from the group consisting of oxygen, nitrogen and sulfur,

and further wherein said residue of said organic acid is covalently linked to said residue of said psychotropic drug via an alkyloxy carboxylic ester bond, the method comprising, prior to said reacting:

converting said psychotropic drug into a chloroalkyl ester derivative thereof.

115. The method of claim 114, wherein said reacting is performed under basic conditions.

116. The method of claim 114, wherein said R is a substituted or non-substituted alkyl having 3-5 carbon atoms.

117. The method of claim 94, wherein said organic acid is a GABA agonist and said GABA agonist comprises a free amino group, the method further comprising:

protecting said amino group with a protecting group, prior to said reacting, so as to obtain by said reacting an amino-protected residue of said organic acid covalently linked to said residue of said psychotropic drug; and

removing said protecting group after obtaining said amino-protected residue of said organic acid covalently linked to said residue of said psychotropic drug.

118. The method of claim 117, further comprising, after said protecting and prior to said reacting:

converting said organic acid into an acyl imidazole derivative thereof.

119. The method of claim 117, whercin said GABA agonist residue is selected from the group consisting of a (±) baclofen residue, an γ-aminobutyric acid (GABA) residue, a γ-hydroxybutyric acid residue, an aminooxyacetic acid residue, a β-(4-chlorophenyl)-γ-aminobutyric acid residue, an isonipecotic acid residue, a piperidine-4-sulfonic acid residue, an 3-aminopropylphosphonous acid residue, an 3-aminopropylphosphinic acid residue, an 3-(aminopropyl)methylphosphinic acid residue a 1-(aminomethyl)cyclohexaneacetic acid residue (gabapentin), Λ y-vinyl-γ-aminobutyric acid (y-vinyl GABA, vigabatrin) and an 3-(2-imidazolyl)-4-aminobutanoic acid residue.

120. The method of claim 93, wherein said psychotropic drug is selected from the group consisting of a phenothiazine and a phenothiazine derivative.

121. The method of claim 93, wherein said psychotropic drug is an anti-psychotic drug.

122. The method of claim 121, wherein said anti-psychotic drug is selected from the group consisting of a typical anti-psychotic drug and an atypical psychotic drug.

123. The method of claim 93, wherein said psychotropic drug is selected from the group consisting of an anxiolytic drug, an anti-depressant, an anti-convulsive drug, an anti-parkinsonian drug, an acetylcholine esterase inhibitor, a MAO inhibitor, a tricyclic psychotropic drug, a bicyclic psychotropic drug, a monocyclic psychotropic drug, a phenothiazine, a benzodiazepine and a butyrophenone.

124. The method of claim 93, wherein said psychotropic drug is selected from the group consisting of chlorpromazine, perphenazine, fluphenazine, zuclopenthixol, thiopropazate, haloperidol, benperidol, bromperidol, droperidol, spiperone, pimozide, piperacetazine, amilsulpride, sulpiride, clothiapine, ziprasidone, remoxipride, sultopride, alizapride, nemonapride, clozapine, olanzapine, ziprasidone, sertindole, quetiapine, fluoxetine, fluvoxamine, desipramine, paroxetine, sertraline, valproic acid, temazepam, flutemazepam, doxefazepam, oxazepam, lorazepam, lormetazepam, cinolazepam, flutazolam, lopirazepam, meprobamate, carisoprodol, acetophenazine, carphenazine, dixyrazine, priciazine, pipothiazine, homophenazine, perimetazine, perthipentyl, flupentixol, piflutixol, teflutixol, oxypethepin, trifluperidol, penfluridol, meclobemide, norclomipramine, amoxapine, nortriptyline, protriptyline, reboxetine, tacrine, rasagiline, amatadine, phenobarbital and phenytoin.

125. The method of claim 93, wherein said organic acid is selected from the group consisting of a butyric acid, a valeric acid, a 4-phenylbutyric acid, an 4-aminobutyric acid, a retinoic acid, a sulindac acid, an acetyl salicylic acid, an ibuprofen, a malonic acid, a succinic acid, a glutaric acid, a fumaric acid and a phthalic acid.